

### **AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows:

#### **LISTING OF CLAIMS:**

Claim 1. (Currently Amended) A process for producing vitamin C from L-sorbose which comprises contacting L-sorbose with a purified L-sorbose dehydrogenase having the following physico-chemical properties: **[[;]]**

- a) Molecular weight: 150,000  $\pm$  6,000 Da or 230,000  $\pm$  9,000 Da (consisting of 2 or 3 homologous subunits, each subunit having a molecular weight of 75,000  $\pm$  3,000 3,000 Da)
- b) Substrate specificity: active on aldehyde compounds
- c) Cofactors: pyrroloquinoline quinone and heme c
- d) Optimum pH: **[[;]]** 6.4 to 8.2 for the production of vitamin C from L-sorbose
- e) Inhibitors: ~~Ce<sup>2+</sup>~~ Co<sup>2+</sup>, Cu<sup>2+</sup>, Fe<sup>2+</sup>, Ni<sup>2+</sup>, Zn<sup>2+</sup>, monoiodoacetate and ethylenediamine tetraacetic acid,

wherein the conversion of L-sorbose to vitamin C is catalyzed by the purified L-sorbose dehydrogenase in the presence of an electron acceptor, and isolating the resulting vitamin C from the reaction mixture.

Claim 2. (Original) The process for producing vitamin C from L-sorbose according to claim 1, wherein the L-sorbose dehydrogenase is derived from the strain *Gluconobacter oxydans* DSM No. 4025 (FERM BP-3812), a microorganism belonging

to the genus *Gluconobacter* having identifying characteristics to *G. oxydans* DSM 4025 (FERM BP-3812) or its mutants.

Claim 3. (Currently Amended) The process according to claim 1, wherein the ~~reaction~~ contacting of L-sorbose with a purified L-sorbose dehydrogenase is carried out at pH values of about 6.4 to about 9.0 and at a temperature range from about 20°C to 60°C for about 0.5 to 48 hours.

Claim 4. (Currently Amended) The process according to claim 1, wherein the ~~reaction~~ contacting of L-sorbose with a purified L-sorbose dehydrogenase is carried out at pH values of about 7.0 to 8.2 and at a temperature range from about 20°C to 50°C for about 0.5 to 24 hours.

Claim 5. (New) The process according to claim 1, wherein the contacting of L-sorbose with a purified L-sorbose dehydrogenase is carried out at pH values of about 7.0 and at a temperature range from about 20°C to 50°C.

Claim 6. (New) The process according to claim 1, wherein the contacting of L-sorbose with a purified L-sorbose dehydrogenase is carried out for about 1 hour.

Claim 7. (New) The process according to claim 1, wherein the contacting of L-sorbose with a purified L-sorbose dehydrogenase is carried out at pH values of about 6.6 to 7.8 and at a temperature of about 30°C for about 1 hour.

Claim 8. (New) The process according to claim 7, wherein the contacting of L-sorbose with a purified L-sorbose dehydrogenase is further carried out in the presence of 100 mM potassium phosphate.